REMARKS

Claims 5-10 and 22-27 are pending in this application. Claims 5-9 and 22-26 have been amended. No new matter has been introduced as a result of these amendments.

Objection to the drawings

The Examiner has objected to the drawings as not showing the feature of associating multiple queues with respective nodes. Applicants respectfully request that that the Examiner read pages 31-41 of the application while referring to Figures 14, 15, 16, 17, 18A-D, and 21. As stated and illustrated in these sections, the queues are assigned an index and a unique identifier. The index and the identifier are placed in the fields of a node at the root of a pile and then percolate down through the levels of the pile to a level consistent with the priority of the event (see pages 31 and 32 and Figures 14 and 15). Figures 17, 18A-D, and 21 further elaborate on the index and identifier being in the root node and the use of the data structure for the scheduling of the events in the queues. Thus, the Examiner has no reasonable basis to state that this feature is not supported by the drawings. If the Examiner maintains this rejection the Applicants respectfully request that the Examiner elaborate how this feature is not shown by the above referenced rather than conclusory statements.

Rejections Under 35 USC 101

The Examiner has rejected claims 5-10 as being directed to non-statutory subject matter. The Applicants respectfully disagree with this rejection as claim 5 is directed to the scheduling of events in a computing system so that the processing is performed more efficiently. As clearly stated by *In Re Lundgren*, the transformation of data falls within the technological arts. By utilizing the data structure to incorporate the index and identifier of the event queues therein, the

scheduling and arbitration for the events by a shared resource becomes more efficient. If the Examiner maintains this rejection, the Applicants respectfully request that the Examiner specify how the scheduling of events does not fall with the technological arts in light of the opinion of *In re Lundgren*.

Rejections Under 35 USC 112

Claims 5-10 and 22-27 were rejected under 35 USC 112 for failing to comply with the written description requirement. As discussed above, this feature is fully supported by the specification in pages 31-41 and corresponding text. One having ordinary skill in the art would readily understand how the queues are associated with the respective nodes through the queue identifier and queue index. Applicants respectfully request that the Examiner specify how the referenced sections do not convey to one skilled in the art how the queues are associated with the nodes of the data structure. Furthermore, Applicants respectfully request that the Examiner provide some technical basis for this reasoning in light of the referenced sections rather than the conclusory rejection of the corresponding claims.

Claims 5-10 and 22-27 were rejected for failing to distinctly claim the subject matter that the Applicant regards as his invention. With regard to nodes sharing a pointer, the Examiner is directed to Figure 8 as specified in the last amendment. As clearly shown in Figure 8, the single pointer is shared among four nodes in the node group. Applicants are unaware of how to make this point any more clearly for the Examiner. As for the Examiner's question as to how a specific node can be accessed if only one pointer is used, which is not present in any of the claims of the Applicants, the Examiner is directed to page 20 where the supernode structure is explained and the fact that the node groups are siblings of each other and only one sibling is needed for ant given path through the heap. One skilled in the art would readily understand this explanation of sharing a pointer so that a node within a node group may be accessed. The

Applicants have addressed the Examiner's objection to the segment of associating the multiple queues with respective nodes as this is clearly stated in the specification. With regard to the terms "multiple queues" and "the value," the amendments presented herein have addressed these rejections. Accordingly, Applicants request withdrawal of these rejections.
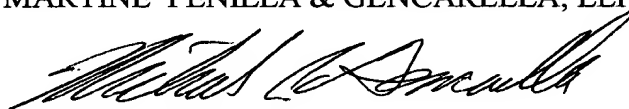
Rejections Under 35 USC 102

In light of the amendments to claim 5, the Applicants respectfully request the removal of the rejections under 35 USC 102 as being anticipated by US Patent No. 6,701,324 to Cochran et al. Claim 5 includes the features of defining a data structure with a root level having a node group, the node group having k number of nodes, each of the k number of nodes sharing a pointer, each of the k number of nodes stored contiguously in memory, wherein the k number is equal to a number of multiple queues; associating the multiple queues with respective nodes; and assigning a value representing the corresponding priority to the respective nodes. These features are supported by Figures 7, 8, 18A, 18D and the corresponding text. Cochran fails to anticipate these features. The Examiner references column 5, lines 18-22 as disclosing this feature. Nowhere in this referenced section or anywhere else within Cochran, is the feature of the k number of nodes being stored contiguously in memory shown. As a matter of fact Cochran is directed to the collection of nodes in distributed systems, which would be impossible to store contiguously in memory (see column 1, lines 22-27). Accordingly, the Applicants respectfully request that the rejection to claim 5 be withdrawn in light of this amendment. Claims 6-10 depend from claim 5 and are likewise patentable over the cited reference for at least the same reasons. The Applicants would further submit that the features defined through claims 6-10 further provide additional subject matter that is not anticipated by the cited reference. Claim 22 and dependent claims 23-27 are patentable over Cohran for at least the same reasons.

Applicants respectfully request a Notice of Allowance based on the foregoing remarks. If the Examiner has any questions concerning the present amendment, the Examiner is kindly requested to contact the undersigned at (408) 774 6921. If any other fees are due in connection with filing this amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ALTEP072). A copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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